

Attorney Docket No.: DRE-0055  
Inventors: Laurencin et al.  
Serial No.: 09/878,641  
Filing Date: June 11, 2001  
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following paragraph:

W Synthetic ligament grafts or graft supports include carbon fibers, LEEDS-KEIO ligament (polyethylene terephthalate), the GORE-TEX prosthesis (polytetrafluoroethylene), the STRYKER-DACRON ligament prosthesis made of DACRON (condensation polymer obtained from ethylene glycol and terephthalic acid) tapes wrapped in a DACRON sleeve and the GORE-TEX ligament augmentation device (LAD) made from polypropylene. These grafts have exhibited good short term results but have encountered clinical difficulties in long term studies. Limitations of these synthetic ligament grafts include stretching of the replacement material, weakened mechanical strength compared to the original structure and fragmentation of the replacement material due to wear.

Please replace the paragraph at page 16, lines 26-34 as follows:

A2 Fibrous scaffolds were fabricated using the 3-D braiding process described in Example 2. Fibers of L-poly lactide (PLA, 70 deniers), polyglycolide (PGA, 60 deniers) and poly-lactide-co-glycolide 82:18 (PLAGA, 70 denier) were laced into 10 fiber/yarn bundles and these yarns were then braided using a 3-D circular braiding machine. Circular 3-D braids of 24 yarns were formed

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and cut into 1.5 cm lengths for these experiments. DACRON constructs were similarly formed and used as controls.

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Please replace the paragraph at page 17, lines 8-19 with the following paragraph:

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Primary ACL cells were isolated from 1 kg New Zealand white rabbits. The excised ACL was digested using a 0.1% collagenase solution, and only cells collected from fourth digestion were selected for the study. Cells were cultured in  $\alpha$ MEM+10% fetal bovine serum, L-glutamine and 1% antibiotics at 37°C and 5% CO<sub>2</sub>. ACL cells were seeded on the scaffolds at a density of 80,000 cells/scaffold and grown for up to 28 days. Tissue culture plastic and DACRON served as control groups. Media were exchanged every two days and for each time point, the pH was measured. Cell growth was measured using the cell-titer 96 assay. Cell morphology and growth on the scaffolds were imaged using SEM.

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In the Claims:

Please amend the claims as follows:

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1. (amended) A replacement construct comprising a degradable, porous, polymeric fiber-based, three-dimensional